

Appl. No. 10/805,081
Amdt. dated Dec. 30, 2004
Reply to Office action of Nov. 19, 2004

REMARKS/ARGUMENTS

The subject matter of the various claims was commonly owned at the time any inventions covered therein were made without any change to inventorship.

5

Claims 1-21, 25 and 26 stand as rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner states that "the reference to 'solving a series of equations' without specifically identifying said equations renders both claims indefinite and unclear." The Examiner suggested rectifying the problem by incorporating the limitations recited in claims 25 and 27 into claims 1 and 25, respectively. The Examiner indicated that such a modification would make the entire case allowable, as none of the cited prior art discloses or suggest identifying changes in the reactive coating as a result of the sensed evanescent fields influenced by the material, and comparing shifts in each long-period grating signature of a specific loss band so as to calculate different properties of said material.

10
15

Claims 1 and 25 have been amended to incorporate the limitations recited in claims 22 and 27. Claims 22 and 27 have been canceled. Support for these amendments is found in paragraph 38 on pages 10-11 and paragraph 43 on pages 12-13.

20

The Examiner has indicated that claims 22-24 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 22 and 27 have been canceled as the limitations of these claims have been incorporated into claims 1 and 25 respectively. Claims 23-24 have been amended to show their dependency on claim 1.

25

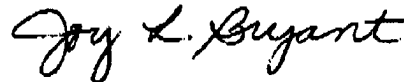
Claims 28-34 have been allowed.

Appl. No. 10/805,081
Amdt. dated Dec. 30, 2004
Reply to Office action of Nov. 19, 2004

CONCLUSION

In view of the above Amendments and Remarks, it is submitted that claims 1-21,
23-26, and 28-34 are in condition for allowance. Reconsideration and withdrawal of the
objections and rejections are requested and allowance of the claims at an early date is
solicited.

Respectfully submitted,



Joy L. Bryant
Reg. No. 37,789
Customer No. 21238

December 30, 2004

P.O. Box 590
Lightfoot, VA 23090
Phone: (757) 220-3927
Fax: (757) 220-3928